

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-7 (Canceled).

Claim 8 (Currently Amended): A power supply system for supplying power to a load, comprising:

a plurality of power supply units, the outputs of which are parallelly connected to power transmission lines to the load, each of the power supply units comprising:

a generator;

an inverter for converting a voltage generated by the generator into an AC voltage and outputting the AC voltage;

an inverter control unit for controlling the inverter, comprising a first synchronization controller operable in a linkage operation with an external AC power supply, for detecting a voltage of the external AC power supply to control the inverter so that the AC voltage outputted from the inverter is in phase with the voltage of the external AC power supply; [[and]]

a connection apparatus for connecting the AC voltage outputted from the inverter to power transmission lines; [[and]]

means for generating an autonomous operation detection synchronizing signal;

and

an autonomous operation detector for detecting, during a predetermined time period from the output timing of the autonomous operation detection synchronizing signal, whether the power supply system is in the autonomous operation in which the system is disconnected from the external AC power supply, whereby all the power

supply units in operation can conduct the autonomous operation detection at the same timing; and

a multiple power unit controller for controlling the plurality of power supply units to individually start and stop and for controlling output power of the respective power supply units.

Claim 9 (Currently Amended): A power supply system according to Claim 8, wherein each of the power supply units further comprises:

~~means for generating an autonomous operation detection synchronizing signal;~~

~~an autonomous operation detector for detecting, during a predetermined time period from the output timing of the autonomous operation detection synchronizing signal, whether the power supply system is in the autonomous operation in which the system is disconnected from the external AC power supply;~~

means for transmitting the autonomous operation detection synchronizing signal to the other power supply units; and

means for receiving the autonomous operation detection synchronizing signals from the other power supply units.

Claim 10 (Currently Amended): A power supply system according to Claim 8, wherein at least one power supply unit further comprises:

means for generating the autonomous operation detection synchronizing signal[[:]]

~~an autonomous operation detector for detecting, during a predetermined time period from the output timing of the autonomous operation detection synchronizing signal, whether the power supply system is in the autonomous operation in which the system is disconnected from the external AC power supply; and~~

~~means for transmitting the autonomous operation detection synchronizing signal to the other power supply units.~~

Claim 11 (Previously Presented): A power supply system according to Claim 9, wherein the autonomous operation detector of each of the power supply unit is adapted to function as a power failure detector for detecting a failure of the external AC power supply during a linkage operation with the external AC power supply.

Claim 12 (Currently Amended): A power supply unit according to Claim 8, wherein the components of each of the power supply units ~~they~~ are unified, ~~the power supply unit~~ comprising:

~~a synchronizing signal generator for generating a synchronizing signal corresponding to an output voltage wave of the inverter;~~

~~a synchronizing signal output circuit for outputting the synchronizing signal;~~

~~a synchronizing signal input circuit for inputting a synchronizing signal; and~~

~~a circuit for transmitting and receiving the synchronizing signal to and from the other units.~~

Claim 13 (Previously Presented): A power supply system according to Claim 8, wherein the system further comprises a synchronizing signal line connected in common to the plurality of power supply units, and the inverter control unit of each of the power supply units comprises a second synchronization controller, the second synchronization controller comprising:

a synchronizing signal generator circuit for generating a synchronizing signal having a first cycle which is synchronized with the AC voltage outputted from the associated inverter

and outputting the synchronizing signal onto the synchronizing signal line, in which the synchronizing signal generator circuit generates the synchronizing signal having the first cycle from a reception timing of the synchronizing signal generated by itself or the synchronizing signal outputted onto the synchronizing signal line from the synchronizing signal generator circuit of another power supply unit.

Claim 14 (Previously Presented): A power supply system according to Claim 8, wherein

each of the power supply units further comprises a waveform detector for detecting a waveform of an AC voltage at the connection section, and

the autonomous operation detector of each power supply unit is adapted to shift the frequency of the AC voltage outputted from the associated power supply unit in a positive or a negative direction and then in the negative or positive direction for a predetermined time period from the generation of the autonomous operation detection synchronizing signal, and determine that the external AC power supply is shut off when the waveform detected by the waveform detector has a frequency other than the frequency of the external AC power supply during the predetermined period.

Claim 15 (Original): A power supply system according to Claim 8, wherein the inverter control unit of each of the power supply units further comprises a synchronization controller for synchronizing the phase of the AC voltage outputted from the associated inverter to the phase of the AC voltage output from the inverter of another power supply unit during an autonomous operation in which the power supply system is disconnected from the external AC power supply, or to the phase of the AC voltage of the external AC power supply.

Claim 16 (Original): A power supply system according to Claim 15 further comprising synchronizing signal lines connected in common to the plurality of power supply units, wherein the synchronizing controller of each power supply unit comprises:

a synchronizing signal generator circuit for generating a synchronizing signal having a first cycle synchronized to the AC voltage outputted from the associated inverter and outputting the synchronizing signal onto the synchronizing signal line, in which the synchronizing signal generator circuit generates the synchronizing signal having the first cycle from a reception timing of the synchronizing signal generated by itself or the synchronizing signal outputted onto the synchronizing signal line from the synchronizing signal generator circuit of another power supply unit.

Claim 17 (Previously Presented): A power supply system according to Claim 15, wherein

each of the power supply units further comprises a waveform detector for detecting the waveform of an AC voltage at the connection section, and an external power supply shut-off detector for detecting whether the external AC power supply is shut off, and

the external power supply shut-off detector of each power supply unit periodically shifts the frequency of the AC voltage outputted from the associated power supply unit in a positive or a negative direction and then in the negative or positive direction for a predetermined period, and determines that the external AC power supply is shut off when the waveform detected by the waveform detector has a frequency other than the frequency of the external AC power supply during the predetermined period.

Claims 18-34 (Canceled).

Claim 35 (Currently Amended): ~~A power supply system according to Claim 22,~~
~~wherein~~ A power supply system for supplying electric power to a load, comprising:
power transmission lines for supplying electric power to the load in at least one of a
linkage operation with an external AC power supply and an autonomous operation in which
the power supply system is disconnected from the external AC power supply;
a plurality of power supply units, outputs of which are parallelly connected to the
power transmission lines, each of the plurality of power supply units comprising:
a generator;
an inverter for converting a voltage generated by the generator into an AC
voltage and outputting the AC voltage;
an inverter control unit for controlling the inverter, comprising a
synchronization controller for synchronizing the phase of the AC voltage outputted
from the inverter to the phase of a predetermined AC voltage; and
a connection apparatus for supplying the AC voltage outputted from the
inverter to the power transmission lines; and
a multiple power unit controller for controlling each of the power supply units to start
and stop and for controlling the output of each power supply unit, wherein
the system further comprises communication lines such as wireless communication
lines, optical communication lines, and a digital bus,
the multiple power unit controller is adapted to supply a control signal for controlling
the operation of the plurality of power supply units to the plurality of power supply units
through the communication lines, and
the control signal outputted from the multiple power unit controller includes a signal
for controlling each of the respective power supply units to be operated to output an AC
voltage having a value different to the others.